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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/644,450

08/20/2003

Katrina Schmidt

12166

7041

28484

7590

11/30/2007

BASF AKTIENGESELLSCHAFT

CARL-BOSCH STRASSE 38, 67056 LUDWIGSHAFEN

LUDWIGSHAFEN, 69056

GERMANY

EXAMINER

COONEY, JOHN M

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

11/30/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lori.hass@basf.com

marjorie.ellis@basf.com

fernando.borrego@basf.com

## Office Action Summary

### Application No.

10/644,450

### Applicant(s)

SCHMIDT ET AL.

### Examiner

John Cooney

### Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26,28,29,31,34,36-39,41,42 and 44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 26,28,29,31,34,36-39,41,42 and 44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Applicant's arguments filed 9-17-07 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26,28,29,31,34, 36-39,41,42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spitzer et al. (5,340,900).

Spitzer et al. disclose preparations of polyurethane products prepared from hardener composition constituent a) meeting the first polyols of applicants' claims, Lupranol 2042 meeting the second polyol of applicants' claims, Jeffamines, including Jeffamine D2000, meeting the curing component of applicants' claims, and blowing agents including water (see column 3 lines 18-58, column 6 lines 32-39, column 10 lines 38-42, and example 6, as well as, the entire document).

Spitzer et al. differs from applicants' claims in that the ranges of amount values for the hardening composition constituent a) of Spitzer et al. do not correspond exactly to those for the first polyol of applicants' claims. However, Spitzer et al.'s disclosure (see again column 3 lines 18-58) does indicate overlap with the ranges of values of applicants' claims. Accordingly, it would have been obvious for one having ordinary skill

in the art to have varied the amount of the hardening composition constituent a) within the teachings of Spitzer et al. for the purpose of controlling its hardening effect in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Spitzer et al. differs from applicants' claims in that densities as claimed are not exemplified. However, Spitzer et al.'s own teaching (see again column 6 lines 32-39) identifies employment of blowing agent, particularly water, and control of its employment for control of its effect. Accordingly, it would have been obvious for one having ordinary skill in the art to have controlled the amount of water blowing agent within the teachings of Spitzer et al. for the purpose of controlling the pore forming and, accordingly, densification effects in the products realized in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Spitzer et al. differs from applicants' claims in that Index values of 25-60 are not specifically exemplified. However, Spitzer et al. discloses the employment of customary reactive ratios in the operation of its invention for the purpose of achieving their disclosed reactive effect(see again column 7 lines 55-63). Accordingly, it would have been obvious for one having ordinary skill in the art to have operated at other customary Index values within the accommodations of Spitzer et al. beyond the exemplified ranges of Index values highlighted by Spitzer et al. for the purpose of controlling well known impacts on properties of the finally realized products, such as hardness and elongation, in order to arrive at the products and processes of applicants' claims with the

expectation of success in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of the same properties. *Titanium Metals v Banner* 227 USPQ 773. (see also MPEP 2144.05 I). Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980)

The following previous arguments are maintained:

Rejection as to blowing agent amounts is maintained because reference teaches inclusion of additives such as blowing amounts, in particular water, in amounts of up to 30% by weight. Reduced density of articles realized is not seen to be an unexpected result attributable to employment of blowing agent in the amounts as claimed.

When considering showings of new or unexpected results, the following need to be considered:

Results Must be Unexpected:

Unexpected properties must be more significant than expected properties to rebut a prima facie case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

Claims Must be Commensurate With Showings:

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of prima facie obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

Applicants' have not persuasively demonstrated unexpected results for the employment of blowing agents in the amounts of their claims in the compositions as claimed. Applicants have not demonstrated their results to be clearly and convincingly unexpected and more than mere optimizations of the knowledge in the art or more significant than being secondary in nature. Applicants' have not demonstrated their showing to be commensurate in scope with the scope of combinations now claimed.

Applicants' have not demonstrated patentability of their formulated resin component claims based on the spraying applications of their disclosure. Polyurethane products have not been demonstrated to be different based on means of their formation as claimed. Further, the methods are not differentiated by the means of providing as set forth in the claims. That claim 41 additionally requires spraying the components exemplifies the fact that applicants' broadest claims do not require spraying. Additionally, applicants do not set forth specifics of their spraying operations which differentiate over the processing operations disclosed by Spitzer et al. (see again column 9 lines 5-20).

Applicants' arguments as to the NCO index values of their claims have been considered. However, distinction based on the ranges of values claimed over the customary reactive ratios (see again column 7 lines 55-63) disclosed by Spitzer et al. is not evident. Applicants' correction of examiner's citation of the *Titanium Metals v Banner* 227 USPQ 773 holding is noted and reflected in the rejection above.

The *Titanium Metals v Banner* 227 USPQ 773 holding is maintained to still apply in the instant case. Additionally, rejection is maintained as proper based on all of the evidence of record, and it is maintained that Spitzer et al.'s fully considered disclosure teaches or fairly suggests Index values beyond those ranges of values specifically exemplified in its disclosure, and applicants have not met their burden of making a factually supported, clear and convincing, commensurate in scope showing of new or unexpected results attributable to the Index values of their claims sufficient to overcome the rejection as set forth above.

Applicants' recent arguments, including the substance of the interview of September 5<sup>th</sup>, 2007, have been considered. However, rejection is maintained. It is maintained that the full teaching and suggestion of the cited prior art extends beyond the general Index values exemplified by its teachings. Control and variations of the Index values are customary in polyurethane synthesis operations with well studied effects on product formation and their final properties.

Applicants' arguments pertaining to allegations of reduced dripping as a result of their invention have been considered. However, these allegations have not been reflected by a fact based showing of new or unexpected results attributable to differences in the claims.

Applicants' arguments pertaining to "low" water absorption of the articles as a result of the Index values as claimed have been considered. However, these allegations have not been reflected by a fact based showing of new or unexpected results attributable to differences in the claims with further demonstration that the results are, in fact, unexpected and more significant than what would be expected. Additionally, it is held that the relative term "low" carries little or no effect of a limitation in the patentable sense.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JOHN M. COONEY, JR.  
PRIMARY EXAMINER  
Group 1700